

**Notice of Allowability**

Application No.

10/073,678

Examiner

Laura S Weiner

Applicant(s)

LAMPE-ONNERUD ET AL.

Art Unit

1745

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8-25-04.
2. ☒ The allowed claim(s) is/are 14-19 and 21-23.
3. ☒ The drawings filed on 11 February 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 8-25-04
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 10122004
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### EXAMINER'S AMENDMENT

1. Authorization for this examiner's amendment was given in a telephone interview with Mr. Scott Pierce on October 12, 2004.
2. The application has been amended as follows:

#### IN THE CLAIMS

In Claim 18, line 1, change "claim 16" to --claim 17--.

In Claim 22, line 1, change "wherein the polymeric binder" to --further including a polymeric binder--.

**CANCEL** claims 1-13 and 20 because the claims are drawn to a non-elected invention.

3. The following is an examiner's statement of reasons for allowance:

Claims 14-19, 21-23 are allowable over the prior art of record because no reference taught a cathode where the A atoms (Ba, Mg, Ca, Sr) substitute for Li atoms and the Co and B atoms (B, Al, Ga, Mn, Ti, V, Zr) substitute for Ni atoms in the structure  $\text{Li}_{x1}\text{A}_{x2}\text{Ni}_{1-y-z}\text{Co}_y\text{B}_z\text{O}_a$ .

Takanishi et al. (5,679,481) teaches a cathode material of the structure  $\text{Li}_{1-x}\text{A}_x\text{Ni}_{1-y}\text{B}_y\text{O}_2$  wherein A is an alkaline earth metal selected from 1) at least two of Mg, Ca, Sr, Ba, 2) Sr alone and 3) Ba alone; B is at least one transition metal element other than Ni. The examples teach that the formula can contain Ni and Co, Ni and Cu, Ni and Ti, Ni and Mn, etc. but never teach that the structure can contain Ni, Co

Art Unit: 1745

and a second transition metal element such as specifically Al, Ga, Mn, Ti, V or Zr.

Takanishi et al. broadly states that this can result but never discusses or shows any examples.

Kumta et al. (6,017,654) teaches a cathode material containing the formula  $\text{Li}_{1+x}\text{Ni}_{1-y}\text{M}_y\text{N}_x\text{O}_{2(1+x)}$  where N is a group II element selected from Mg, Ca, Sr, Ba and Zn and M is a transition metal selected from Ti, V, Cr, Mn, Fe, Co and Al.

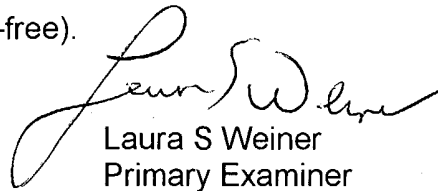
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura S Weiner whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1745

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Laura S Weiner  
Primary Examiner  
Art Unit 1745

October 12, 2004